

WHAT IS CLAIMED IS:

1 1. A system for providing access to array of guide pages from an
2 interactive program guide within constraints imposed by limited bandwidth available in a
3 distribution network, the system comprising:

4 a distribution control center coupled to the distribution network;
5 a session manager in the distribution control center for monitoring and
6 controlling usage of demand-cast stream bandwidth within the distribution network; and
7 a transport stream generator for receiving demand-cast stream usage
8 information from the session manager and using said information to control which
9 demand-cast streams are multiplexed into a transport stream for transmission to a
10 plurality of terminals via the distribution network.

1 2. The system of claim 1, wherein the plurality of terminals are
2 coupled to a node within the distribution network, and said transport stream is transmitted
3 from the transport stream generator to said node.

1 3. The system of claim 1, wherein the session manager receives
2 demand-cast stream acquisition, release, and request messages from the plurality of
3 terminals.

1 4. The system of claim 3, wherein said acquisition, release, and
2 request messages are transmitted via out-of-band communications.

1 5. The system of claim 1, wherein the transport stream includes a list
2 of available demand-cast streams, and said list is used by a terminal in determining
3 whether a stream with a particular guide page may be acquired immediately or needs to
4 be requested.

1 6. The system of claim 5, wherein an acquisition message is sent from
2 the terminal to the session manager if the stream is acquired, and a request message is
3 sent from the terminal to the session manager if the stream needs to be requested.

1 7. The system of claim 6, wherein a release message is sent from the
2 terminal to the session manager once the terminal is no longer acquiring the stream.

1 8. The system of claim 1, wherein the session manager tracks
2 demand-cast streams that are acquired by at least one terminal by maintaining a dynamic
3 list of terminals that are presently acquiring each demand-cast stream.

1 9. The system of claim 8, wherein the session manager informs the
2 transport stream generator when a terminal request a demand-cast stream which is not
3 present in the transport stream.

1 10. The system of claim 9, wherein the session manager informs the
2 transport stream generator when there is no longer any terminals acquiring the demand-
3 cast stream.

1 11. The system of claim 1, wherein the distribution control center
2 comprises a cable headend.

1 12. The system of claim 1, wherein the transport stream generator is
2 co-located with the session manager at the distribution control center.

1 13. The system of claim 1, wherein the transport stream generator is
2 located separately from the session manager.

1 14. A session manager for monitoring and controlling usage of
2 demand-cast bandwidth within a distribution network, the session manager comprising:
3 a monitoring module for receiving acquisition, release, and request
4 messages from a plurality of terminals;
5 a tracking module for maintaining a dynamic list of terminals that are
6 presently acquiring each demand-cast stream; and
7 a controlling module for informing the transport stream generator when a
8 terminal requests a demand-cast stream which is not present in the transport stream and
9 for informing the transport stream generator when there is no longer any terminals
10 acquiring the demand-cast stream.

1 15. A transport stream generator, said stream generator comprising:
2 an interface to a session manager for receiving demand-cast stream usage
3 information from the session manager;

- 4 a multiplexer for multiplexing demand-cast streams into a transport stream
- 5 for transmission to a plurality of terminals via a distribution network; and
- 6 a controller for controlling which demand-cast streams are multiplexed
- 7 into the transport stream using the demand-cast stream usage information.